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**3/5/1 (Item 1 from file: 351)**

DIALOG(R)File 351:Derwent WPI

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009017162 \*\*Image available\*\*

WPI Acc No: 1992-144500/\*199218\*

XRPX Acc No: N92-108018

**Microwave-excited gas laser - has reflecting mirrors facing respectively  
to ends of laser tube formed by ridge waveguide NoAbstract Dwg 6/13**

Patent Assignee: TOSHIBA KK (TOKE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 4032281	A	19920204	JP 90137218	A	19900529	199218 B

Priority Applications (No Type Date): JP 90137218 A 19900529

Patent Details:

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RESPECTIVE; END; LASER; TUBE; FORMING; RIDGE; WAVEGUIDE; NOABSTRACT

Derwent Class: V08

International Patent Class (Additional): H01S-003/09

File Segment: EPI

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Basic Patent (No,Kind,Date): JP 4032281 A2 920204 <No. of Patents: 001>

PATENT FAMILY:

JAPAN (JP)

Patent (No,Kind,Date): JP 4032281 A2 920204

MICROWAVE EXCITED GAS LASER APPARATUS (English)

Patent Assignee: TOKYO SHIBAURA ELECTRIC CO

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Priority (No,Kind,Date): JP 90137218 A 900529

Applic (No,Kind,Date): JP 90137218 A 900529

IPC: \* H01S-003/09; H01S-003/03; H01S-003/097

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**3/5/3 (Item 1 from file: 347)**

DIALOG(R)File 347:JAPIO

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MICROWAVE EXCITED GAS LASER APPARATUS

PUB. NO.: 04-032281 [\*JP 4032281\* A]

PUBLISHED: February 04, 1992 (19920204)

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(ELECTRONICS -- Electron Tubes)  
JAPIO KEYWORD: R002 (LASERS)  
JOURNAL: Section: E, Section No. 1202, Vol. 16, No. 204, Pg. 13, May  
15, 1992 (19920515)

ABSTRACT

PURPOSE: To make it possible to achieve high repetition operation, long service life and to operate with a large output and by providing a pair of conductor lids which are installed in the openings of both ends of a laser tube, each of which lids has a hole for permitting only a light beam in a state in which microwaves are blocked from passing; and a pair of mirrors which are disposed outside the openings of both ends of the laser tube and which constitute a resonator.

CONSTITUTION: A microwave excited gas laser apparatus comprises a laser tube 2 placed inside a container 1; an output mirror 3 and a total-reflection mirror both which are disposed outside the openings of both ends of the laser tube and which constitutes a resonator; a magnetron 5, disposed outside the container 1, which magnetron is employed as a source for generating microwaves; a waveguide 6 which goes through the container 1 airtight, disposed to guide microwaves generated by this magnetron to the laser tube 2; an air blower for making the laser gas sealed inside the container 1 to be forcedly circulated in the direction, indicated by thick arrows 7, in which this laser gas intersects the laser tube 2.